

# IDAHO DEPARTMENT OF FISH & GAME.

Jerry M. Conley, Director

HAYSPUR FISH HATCHERY

Annual Report



1 October 1981 - 30 September 1983 by

Leland Batchelder  
Fish Hatchery Superintendent II

August 1983

## TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT .....	1
OBJECTIVES .....	2
INTRODUCTION .....	2
FISH PRODUCTION .....	3
FISH HEALTH .....	3
FISH RELEASES .....	4
HATCHERY IMPROVEMENTS .....	4
FISH FEED UTILIZED .....	4
MISCELLANEOUS ACTIVITIES .....	5
HATCHERY NEEDS .....	5
HATCHERY STAFFING 1981-82 .....	6

## LIST OF FIGURES

Figure 1. Fish transfers, 1982 .....	7
Figure 2. Broodstock eight-year spawning records .....	8
Figure 3. Map of hatchery grounds .....	9

## **ABSTRACT**

The Hayspur Hatchery, oldest in the state hatchery system, was started in 1906. It is located in the Wood River Valley between Silver Creek and the Big Wood River. The hatchery is located on a diversion point on Loving Creek, which, with springs a short distance away, is the source of the hatchery water supply. The hatchery is located five miles northwest of Picabo, 2 1/2 miles south of Gannet, Idaho. Hailey is the nearest large town, some 18 miles north of the hatchery.

Our main objective has always been to raise quality trout in sufficient numbers to supply the streams, lakes, and reservoirs as needed as part of the statewide fisheries program. The past few years we have transferred almost one-third of our catchable production to northern Idaho for redistribution.

We have developed by selective breeding a good strain of rainbow (R-1) broodstock from which we spawn 3 1/2-to-5 1/4 million eggs each fall. We supply several other hatcheries in the state with eggs, fry, fingerlings, and catchables. We retain approximately two-million eggs for our hatchery needs. The hatchery can produce up to a maximum of 145,000 pounds of fish per year, but a realistic goal is 125,000 pounds total production.

Author:

Leland Batchelder  
Fish Hatchery Superintendent II

## OBJECTIVES

1. To produce about 125,000 pounds of fish each year as part of the overall statewide fisheries program.
2. Most of our catchables are planted in Blaine County, with the exception of Dog Creek Reservoir in Gooding County and Mormon Reservoir in Camas County. We stock Stanley Lake in Custer County occasionally. Our main stocking program is concerned with the Big Wood River and most of its larger tributaries which are Deer Creek, Trail Creek, Warm Springs Creek, North Fork, and Baker Creek. We redlined several others the past few years.

We also stock Fish Creek, Little Wood, Magic, Mormon, and Thorn Creek reservoirs with large amounts of fry and fingerling rainbow and some catchables, when necessary. We stock some lakes in Stanley Basin, also.

3. Most years we stock Magic with over 500,000 fry and fingerling; 200,000 in Fish Creek; 210,000 in Little Wood; 150,000 in Mormon; 40,000 in Thorn Creek; plus 10,000 catchables in Dog Creek Reservoir; Lava Lake with 1,000; Lake Hill Lakes get about 500 larger fingerling, and we plant Penny, Lake Creek, and Dollar lakes with whatever the pressure demands or we can spare.

## INTRODUCTION

Hayspur Hatchery is located in the Wood River, Silver Creek Valley of Region 4. It receives all its water in the immediate area from springs, artesian wells, and Loving Creek. We require about 21 cfs to operate properly, but get by on a lot less. We recirculate about 3 cfs most of the spring and summer.

The hatchery has six 12' x 400' x 3' large raceways; eight small raceways 6' x 100' x 2'; one lagoon 500' long x 100' wide, average 6' deep. We also raise our broodstock in about a one-acre lagoon, and have them trained to run up a ladder into one of our small raceways when they are ready to spawn each fall. We have built a spawning house out of corrugated fiberglass where we take the eggs. Our hatchery building has 20 vats that measure 3' x 12' x 2'. We use 20 single-stock Heath incubators and six hatching boxes to eye and hatch our eggs. With our fluctuating water supply, due to drought or increasing irrigation demands, we can raise up to 145,000 pounds of trout in a good year.

## **FISH PRODUCTION**

During the 1981-82 fish year, we raised about 113,000 pounds of trout, of which 83,370 pounds were R-1 catchables; 10,150 pounds of 3"-6" R-1 fingerlings; 17,265 pounds of R-1 to 3" fry; 1,625 pounds of R-2 Mt. Whitney 0-3" rainbow; and 470 pounds of C-5 Bear Lake cutthroat. The R-2 Mt. Whitney fish were all dye-marked and planted in Magic Reservoir. There will be a study conducted to determine best growth, etc. between R-1 and R-2 rainbow in this reservoir.

We graded out 302,172 R-1 fingerling for our 1982-83 holdovers which weighed about 29,000 pounds. We also transferred 1,000 select-bred R-1 into our brood pond and 1,000 hand-picked from the Hot Creek stock for spawning in the fall of 1983.

.In the fall of 1981 we spawned 3,380,642 eggs from our R-1 broodstock, of which we eyed-up 3,139,520 eggs, for about 92.9% eye-up. We shipped about 547,400 of these to the Grace Hatchery and 451,880 to the Ashton facility. So far this 1982 season we have taken 4,884,000 eggs from our broodstock with about 93% eye-up. We received 275,088 R-2 eggs from the Mt. Whitney California Hatchery on 19 April 1982 and planted all survivors, 173,500, as dye-marked fish in Magic on 16 and 17 August 1982, 1,625 pounds total weight. We also received 340,689 C-5 cutthroat eggs from the Eagon Utah Hatchery which were taken from Bear Lake tributaries. We were able to raise 180,740 of these which weighed 470 pounds and then transferred to Grace on 14 September 1982.

## **FISH HEALTH**

Nitrogen gas proved to be our main concern and resulted in minimal fish loss during 1982. I believe we have made a giant step toward solving the nitrogen problems by installing 1 1/2" Koch rings in columns that measure 10" x 4' for small raceways, 8" x 2 1/2' for vats into which all water to our vats and small raceways flow. We will have a full season during 1983 to evaluate their effectiveness. We had minor bouts with bacterial gill and some caudal peduncle disease which were contained with small losses.

### **FISH RELEASES**

Due to a fairly-early spring of 1982, we were able to release 8,775 pounds of 0-3" R-1 and 3,070 pounds of catchables the latter part of April. We continued planting quite steadily all summer until the end of September. During the six-month period, we planted and transferred 1,417,040 0-3" R-1, 173,500 0-3" R-2, 180,740 C-5 Bear Lake cutthroat, and 300,290 R-1 catchables.

### **HATCHERY IMPROVEMENTS**

Had water-measuring weir installed above hatchery so canal company can charge us accurately.

2. Installed nitrogen gas columns over all vats and small raceways.
3. Received a new 2 1/2 ton Chevrolet tank truck.
4. Bought an 18 hp lawnmower (Montgomery Ward).
5. Installed carpet and vinyl in our old house.
6. Installed three woodburning stoves in houses.
7. Mounted aerators on both fish tanks.
8. We re-roofed public restrooms.
9. Built a lot of demand feeders, with mixed results.
10. Completed lots of minor repairs.

### **FISH FEED UTILIZED**

Including our broodstock, we fed 205,160 pounds of feed purchased from Rangen and Clear Springs Feed Company. This cost us \$39,349.38 which accounted to a 1.82 conversion. We produced 113,000 pounds of fish which cost us about 35¢ per pound to raise.

## MISCELLANEOUS ACTIVITIES

We had a few less visitors the past year as the large school groups were not as plentiful. It appears we still had about 4,500 visitors, most of them during the four months of summer.

We helped Bob Bell stock and tag fish in the Richfield Canal and helped patrol two days for the opening of pheasant season. Due to Corsi going back to school, we were short-handed for the sagegrouse check station; we had no big game check stations in this area for 1982.

We spent all of our free time trying to get rid of thistles again this year, but due to a lot of rain, it proved fruitless. The doves had a field day when they went to seed, so all was not lost.

I spent many weeks with the housing committee, as we toured the whole state. We have almost caught up on the minor repairs this committee recommended for this station.

## HATCHERY NEEDS

When money and time become available, we will need large raceway repairs. This will have to be done probably one or two raceways at a time during July and August as we empty them of fish and before we fill them with holdovers for next year.

I would also like to rebuild No. 9 raceway on the other side of the hatchery, have our surge tank replaced on back of the hatchery, and a larger supply line, at least 40", installed so we can utilize the excess water available six-to-eight months of the year. Our diversion dam needs repairs and some fill hauled in around it. Replace the three doors on our garage with two doors so we can get a pickup in. Replace sidewalks to two houses; replace our 1965 one-ton 4x4 with newer model for plowing snow and feeding fish, etc; pump out brood pond sludge, settling pond, and sewage lagoon. Replace old picnic tables in our campground and provide more pumps for recirculating our water below brood pond.

## **HATCHERY STAFFING 1981-82**

Fish Hatchery Superintendent II (12 months) - Bud Batchelder

Fish Hatchery Superintendent I (12 months) - Jack Siple Fish

Culturist (8 months) - Chip Corsi

CETA workers (1,000 hours) - John Sevens

7 June-20 August-Jason Fortner

7 June-20 August-Peter Johnson

Roland Warren replaced Corsi in October.



Figure 1. Fish transfers, 1982.

<u>Date</u>	<u>Species</u>	<u>Receiving waters</u>	<u>Number</u>	<u>Pounds</u>	<u>Size</u>
4/20	R-1	Island Park Res.	253,050	3,500	2-4"
5/11	R-1	Mullan Hatchery	22,400	7,000	8-10"
5/26	R-1	Hagerman Hatchery	21,840	5,600	8-10"
6/01	R-1	Mullan Hatchery	23,400	6,000	8-10"
6/03	R-1	Clark Fork Hatch.	22,200	6,000	8-10"
7/15	R-1	Mullan Hatchery	20,160	6,300	8-10"
8/11	R-1	Ashton Hatchery	2,030	700	8-10"
9/01	R-1	Mullan Hatchery	5,040	2,400	8-11"
9/08	R-1	Mullan Hatchery	2,400	1,200	8-12"
9/08	R-1	Mullan Hatchery	7,350	700	5-8"
9/08	R-1	Salmon River	61,950	5,900	5-8"

Figure 2. Broodstock eight year spawning records, R-1.

---

<u>Year</u>	<u>Eggs taken</u>	<u>Average size</u>	<u>Loss</u>	<u>% eyeup</u>	<u>Shipped other hatcheries</u>
1975	3,168,244	216	343,434	89	1,334,608
1976	2,956,345	238	455,271	86	1,304,776
1977	4,399,560	•264	355,800	91.5	2,416,656
1978	5,210,890	251	454,759	91.3	2,592,616
1979	5,224,100	238	487,662	90.7	2,916,928
1980	3,760,252	238	304,116	91.9	1,413,480
1981	3,380,642	238	241,122	92.9	999,280
1982	4,884,584	238	285,000 (estimate)	93.0	1,696,600

---

